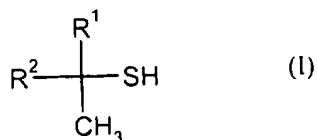


Claims

1. Use of a mixture containing
 - A) at least two different acrylic acid C₁-C₆ alkyl esters;
 - 5 B) at least one compound from the group comprising C₁-C₈ mercaptans, C₄-C₁₂ thiophenes, C₂-C₈ sulfides or C₂-C₈ disulfides;
 - C) at least one compound from the group comprising norbornenes, C₁-C₈ carboxylic acids, C₁-C₈ aldehydes, C₆-C₁₄ phenols, C₇-C₁₄ anisoles or C₄-C₁₄ pyrazines;
 - 10 D) optionally an antioxidantfor the odourisation of fuel gas having a methane content of at least 60 wt.%.
 2. Use according to claim 1, wherein the mixture contains
 - A) at least two different acrylic acid C₁-C₄ alkyl esters;
 - B) at least one compound from the group comprising C₁-C₈ mercaptans, 15 C₄-C₈ thiophenes, C₂-C₈ sulfides or C₂-C₈ disulfides;
 - C) at least one compound from the group comprising norbornenes, C₂-C₅ carboxylic acids, C₂-C₅ aldehydes, C₆-C₁₀ phenols, C₇-C₁₀ anisoles or C₄-C₁₀ pyrazines and
 - D) at least one antioxidant.
 - 20 3. Use according to claim 1, wherein the mixture contains
 - A) acrylic acid methyl ester and acrylic acid ethyl ester;
 - B) at least one compound from the group comprising thiophene, 25 tetrahydrothiophene, dimethyl sulfide, diethyl sulfide, di-n-propyl sulfide,

diisopropyl sulfide, dimethyl disulfide, diethyl disulfide, di-n-propyl disulfide, diisopropyl disulfide or the mercaptans having the formula (I)



5 wherein

R^1 denotes hydrogen, methyl or ethyl, preferably methyl, and

R^2 denotes an alkyl group having 1 to 4 carbon atoms, preferably methyl, ethyl, isopropyl, isobutyl or tert-butyl;

10 C) at least one compound from the group comprising C_2 - C_5 carboxylic acids, C_3 - C_5 aldehydes, C_1 - C_4 monoalkylated phenols and

D) at least one antioxidant.

4. Use according to claim 1, wherein the mixture comprises

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A) acrylic acid methyl ester and acrylic acid ethyl ester;

B) tert-butyl mercaptan;

C) at least one compound from the group comprising propionaldehyde, isovaleraldehyde, isovaleric acid, 2-ethylphenol, 4-ethylphenol and

20 D) one or two antioxidants

or consists of these components.

5. Use according to one of claims 1 to 4, characterised in that the mixture contains as antioxidant tert-butyl hydroxytoluene or hydroquinone monomethyl ether.
- 5 6. Use according to one of claims 1 to 5, characterised in that the mixture contains:
- 60 to 97 wt.% of component A) and/or
- 1 to 30 wt.% of component B) and/or
- 10 0.5 to 20 wt.% of component C) and/or
- 0.01 to 2 wt.% of component D).
7. Use according to one of claims 1 to 5, characterised in that the mixture contains:
- 15 70 to 95 wt.% of components A) and/or
- 2 to 25 wt.% of components B) and/or
- 1 to 10 wt.% of components C) and/or
- 0.02 to 1 wt.% of components D).
- 20 8. Use according to at least one of claims 1 to 7, characterised in that the ratio by weight of component B) to component C) is in the range from 6 : 1 to 1 : 3.
- 25 9. Fuel gas with a methane content of at least 60 wt.%, containing a mixture as defined in one of claims 1 to 8.
10. Fuel gas according to claim 9, characterised in that the fuel gas is natural gas.

11. Process for the odorisation of fuel gas having a methane content of at least 60 wt.%, characterised in that a mixture as defined in one of claims 1 to 8 is added to the fuel gas.

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12. Process according to claim 11, characterised in that the mixture is added to the fuel gas in a quantity of 5 to 100 mg per m³ of gas.
